

CANADA

AT THE

COLONIAL AND INDIAN EXHIBITION.

(Reprinted from the "Times" by permission of the Editor.)

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NOTE

Any further information, maps, pamphlets, &c. relating to Canada, may be obtained on application at the Office of the Canadian Commissioner, 611 London Street, Colonial and Indian Exhibition, or the Canadian Section of the Exhibition; or at the Office of the High Commissioner for Canada, 9, Victoria Chambers, London, S.W.

A complete list of the Exhibits in the Canadian Section is given in the Official Catalogue.

September, 1886.

COLONIAL AND INDIAN EXHIBITION.

CANADA.

(From the "Times," August 6, 1886.)

HAD the Dominion kept aloof what a blank there would have been any one can realise who looks at a plan of the Exhibition, and sees how Canada is spread almost all over the building, from the gateways of British Guiana and the West Indies on the one side to the frontiers of Natal and the Cape on the other, reaching south to the confines of New Zealand and stretching away into the North-West Territories of the arcades and the conservatory. Our American Dominion, indeed, occupies quite as much space as our Asiatic Empire, and nearly as much as all the Australian colonies put together. And rightly so, no doubt, for has she not an area of some three million square miles, and can she not look back upon a venerable antiquity of 300 years? had she not cities and cathedrals, legislatures and great battlefields, long before anybody thought of making Botany Bay even a penal settlement? The Canadians have evidently determined that in variety and quantity of exhibits at least they shall not be excelled, and, on the whole, they have succeeded. In more than one department they are not approached. In none of the courts is progress in all directions more striking and more patent; none of them—with, perhaps, the exception of India—have richer resources of a solid and enduring character to show; and, all in all, none of them can glory in more marvellous results of human industry. Let us briefly recall some of the events which have marked Canada's progress to her present proud position in the British Empire. It was in 1497 that the Cabots touched at Newfoundland and Labrador. In 1534 and 1535 Jacques Cartier made his way up the St. Lawrence beyond the sites of Quebec and Montreal, and took possession of the country in the name of France. It was not, however, till 1603 that under the chivalrous Champlain serious colonisation began; and only in 1605 did he make the first settlement at what is now Annapolis Royal in Nova Scotia, and there was sown the first field of wheat ever sown by the hand of white man in Canada. With varying fortunes did France retain possession of Canada and people it with her children, until in 1759 Wolfe won it for England with his life on the heights of

Abraham. At that time the population could not have been over 100,000, for even in 1784 Lower Canada had only 120,000 inhabitants, and the present province of Ontario was almost a wilderness, with a total European population of less than 2,000. Meantime, by the independence of the United States, Canada had been despoiled of the magnificent region lying between the Mississippi and Ohio, which by the Quebec Act of 1774 had been attached to the province. But Canada was still virtually a Crown colony, and it was only slowly and grudgingly that the mother country granted her that independence which she craved and deserved. Not until 1841 were the provinces of Upper and Lower Canada united under one administration and responsible government firmly established. The united population at that time was only about a million and a half. So long ago as 1808 Richard J. Uniacke introduced the question of the union of all the British provinces in North America before the Legislature of Nova Scotia. From that time until 1867 the subject was frequently brought forward, until on May 22 of that year a Royal Proclamation united the provinces of Upper and Lower Canada, Nova Scotia, and New Brunswick into one Dominion. In 1870 Rupert's Land, Manitoba, and the North-West Territories were added to it; followed in 1871 by British Columbia and in 1872 by Prince Edward Island. By an Order in Council in 1880 all territories in British North America not already included in the Dominion, with the exception of Newfoundland, were incorporated. There are many minor details of interest connected with these transactions into which we cannot enter, but on which information may be obtained in the Hand-book on the Dominion compiled for the Exhibition under the direction of the Hon. John Carling, Minister of Agriculture. Canada is now virtually her own mistress, with a suffrage in the older provinces at least approaching the universal.

Meantime how has her population grown? In 1784, as we have seen, Upper and Lower Canada together had only 120,000 white inhabitants, and probably another 30,000 would have covered the other colonies now included in the Dominion. In 1806, 22 years later, that had trebled, the population being 455,899; within the next 28 years they had again trebled, as in 1834 the population was returned at 1,303,000. Ten years later half a million had been added to the population, and within seven years after another 745,000, the census of 1851 giving a total of 2,547,158 inhabitants. Within the next 20 years Canada received an accession of a million to her population, which in

1871 was 3,602,600. In 1881 it was 4,324,810, and at the present date it is estimated at 4,800,000. This increase, of course, bears no comparison with that of the United States. Nor is it to be expected, for while admitting that in many respects Canada is a splendid field for colonisation, and possesses agricultural capabilities and mineral resources capable of immense development, it would be the blindest chauvinism to maintain that the one has anything like the capabilities of the other. For one thing, although the two territories are about equal in area, only about one-third of the three million odd square miles of Canada is fitted for permanent settlement. Still, when we remember that this is ten times the area of the United Kingdom, surely it must be admitted that, with all due allowance for climate, there must be a splendid future in store for the Dominion. Until 1870 the population was almost entirely confined to the eastern provinces; in that year the North-West Territories, purchased from the Hudson's Bay Company, were thrown open to colonisation, and already they have a population of 80,000, including about 20,000 Indians. These territories for agriculture and stock are in some respects superior to the Western United States. In 1871 the population of Manitoba was only 12,000; now it is probably close on 100,000. In recent years immigration has greatly increased. From 1871 to 1881 the average number of immigrant settlers was 35,000 per annum. In 1882 the number suddenly rose to 112,458, in 1883 it was 133,624, in 1884 it was 103,824, and in 1885 79,160. Canada has now reached the stage when she can choose her own immigrants. While capital and sinew are still welcome, mechanics who cannot turn their hand to agriculture and pioneer work are cautioned that the Dominion is quite equal to providing its own workmen; while for loafers, clerks, and handless people generally, there is no corner. Of the total population of Canada, 85 per cent. are native-born. How sparsely settled are still some of the old provinces may be seen from the fact that Ontario has only 19 persons per square mile, and Quebec itself only seven. The most densely populated is Prince Edward Island, with 54 persons per square mile; in Manitoba it is 0.5, and in British Columbia 0.14, while in the North-West Territories the density is still too small to be reckoned. Of aborigines Canada has still about 130,000, but of these 85,000 are settled, most of them comfortably, and many of them well-to-do. Canada, indeed, deserves credit for the care she exercises over the remnants of the dispossessed population.

What, then, are the resources of this immense territory, and what has its 4½ millions of inhabitants done to develop them? Fisheries on both coasts and in rivers and lakes unsurpassed; thousands of square miles of forest in the eastern provinces, which, in spite of centuries of spoliation, are with care still inexhaustible; agriculture all over the old provinces, and with stock-rearing rapidly taking its way westwards over the great prairie lands to the slopes of the Rocky Mountains; mineral resources of all kinds—gold and silver, coal and iron, and copper and other metals, and minerals of nearly every variety. What account has the Dominion to render of all these? Its widespread courts at South Kensington tell us.

The general arrangement of the Canadian Courts is markedly practical and utilitarian. While the ornamental and artistic have their places, the courts in this respect cannot compare with those of Australia and many of the smaller colonies. Those who wish to see what Canada can do in the way of art should do themselves the pleasure of inspecting the pictures in the Albert Hall, while the many fine photographs in the Quadrant Court will give some idea of what she has to show in the way of scenery and public buildings. Nothing in its way could be more ornamental than the agricultural trophy at one end of the Central Gallery or Mr. Hubbard's magnificent game trophy at the other.

The prominence and superiority of agricultural products and implements may be taken to some extent as indicating that Canada is in the second stage of national progress. Not so long ago peltry and lumber were her mainstays. These are still of great importance, and it will only be by negligence and mismanagement that they will ever become less important than they are. But the Dominion is bound to become increasingly agricultural, taking that term in its widest sense as including both crops and stock. Agriculture must be the basis of her national prosperity. Canada has only made a start as a manufacturing country, but in that direction also a great future is in store for her. Of the total area of the Dominion, only about 50 million acres, or one-fortieth of the whole, are occupied, though the occupied area is increasing at a very rapid rate. If we be liberal and take 1,000 million acres as the area fit to be occupied permanently, then 19-20ths still remain to be taken up. But it must not be imagined that the land unfit for permanent human habitation is useless; in the Rocky Mountains and in the Arctic North Canada should always be

found ample stores of peltry-yielding game. In the United States, which have about the same area, ten times more acres have been taken up than in Canada, and this is about the ratio which the populations of the two countries bear to each other. It is interesting and suggestive to find that the same ratio exists in Canada and the States between the agricultural and industrial results in all directions. Evidently, then, what Canada requires most of all is a population to develop her immense resources. That population will, no doubt, come both by natural increase and by immigration, and if it is of the same material as in the present and the past there can be no doubt of the result. Now that railway communication is open from the Atlantic to the Pacific, facilities for developing the country are vastly increased, and with branch lines running north and south, the improvement of river navigation, and the making of good roads, Canada should be able to hold her own with any competitor. Doubtless her climate has its drawbacks, and what climate has not? If Canada has her occasional summer frosts and her blizzards (and her people know pretty well now how to meet them), have not our tropical colonies their disastrous hurricanes and epidemics, and our Australasian possessions their protracted droughts and their innumerable waterless river-beds? As far as salubrity is concerned a winter in Canada is geniality itself compared to an average English winter and spring. Those most interested in the development of Canada have no need to conceal its drawbacks, nor, as a rule, do they. It is only interested land agents who represent the place as a paradise, and so catch the unwary father with sons to place and small capitalists who imagine they can leap to wealth without labour. In Canada, as elsewhere, the man who wants to succeed must be prepared for the hardest work and the endurance of hardships which, though disagreeable, will not hurt him if he has a decent constitution to begin with and gives it fair play.

Of the occupied area of Canada some 22 million acres were returned as "improved" at the census of 1881, and since then it may be estimated that this has approached 25 millions. Of the improved area over 15 million acres were under crops and the rest under pasture. This 15 million acres produced 150 million bushels of oats, wheat, rye, barley, maize, and pulse. Between 1881 and 1885 the cultivated land in the North-West Territories alone increased from 28,800 acres to 199,000, or an average of 43,000 acres per year. In 1881, in Manitoba, 250,000 acres were under cultivation, and if this has increased at even

one-half the ratio of the North-West Territories it must now be considerably over half a million acres. Fortunately, the land in Canada so far occupied is pretty fairly subdivided among the population. The farmers are mostly content with moderate-sized farms—from 100 to 640 acres—though in the West, of course, there are cattle ranches of great extent. Still, on the whole, the Central or the Provincial Governments have a fair hold on the land, and it will be well for the country if the present policy of moderate-sized occupancies be continued.

It will be seen from the display in the east transept of the Central Court, in which the trophy is conspicuous, that the soil of Canada has been made to yield nearly every variety of produce of temperate latitudes, from the grapes and luscious fruits of the South to the hardy grains of Manitoba and the North-West Territories. A brief description of the trophy and its surroundings will give some idea of this richness and variety. The main body of the trophy is of square formation, each side measuring some 20 ft. in length, giving a total circumference of about 80 ft. The main structure is raised to a height of about 35 ft. from the ground, supported at each corner by an arch. Round these arches, and displayed on every side of the trophy, is an admirable collection of fruits from all parts of Canada, all grown in the open air. Among them will be seen apples of every variety from the eastern provinces; grapes from Quebec and Ontario; peaches, plums, cherries, gooseberries, cranberries, and pears of remarkable size, with other fruits, from British Columbia. These are shown to great advantage in glass jars, labelled with the name of the grower and locality of growth, and preserved in strong chemical solution. Grouped below the fruits near the ground are open bags of wheat, oats, barley, rye, and peas, which we are informed have elicited highly favourable opinions from agriculturists. Some samples are from the Scotch crofters' settlements, and indicate the success which has crowned their persevering labours. In the centre of the trophy a pillar rises to the height of about 35 ft., round the base of which are arranged 40 specimens of wood from British Columbia, including the scrub pine, western thorn, Douglas fir, red cedar, and black and yellow pine. By an ingenious arrangement, a photograph of each species of tree, framed in its own wood, is placed beside it. Appearing again above the main part of the trophy, the central column is seen to consist of tinned goods, decorated with sheaves of the high grasses of the North-West. From each of the four corners of the main tower there rises a minor tower, composed

of canned fruits and meats, faced with sheaves of wheat and hung with festoons of oats in the straw. Around the main body of the trophy as it converges to the centre are found tins of butter, cans of condensed milk, Canadian hams, casks of Canadian sugar, &c. On the east and west sides are life-size plaster figures of a woodman, with axe in hand, and a dairymaid, illustrating the industries of the Dominion. Here are also some fine specimens of native hops from Manitoba. From the corners of the main structure are seen the glistening steel of agricultural implements—forks, scythes, rakes, ploughs, &c., and a “prairie breaker.” The artistic design of this trophy is greatly admired, and while it presents a wonderful display of the agricultural achievements of the Dominion, the whole reflects great credit on Mr. Alexander Begg, of the Canadian Pacific Railway Company, and those by whom he was ably assisted.

The agricultural exhibits surrounding the trophy are varied and worthy of attention—the root crops exhibited by Mr. William Rennie from the seed farm at Toronto; the various fruits, vegetables, cereals, and farinaceous products from different provinces of the Dominion, including some first-rate samples of the hard wheats of the North-West, with fine samples of barley from Eastern Canada; also flax, the culture of which is extending in the North-West. The fibre of this plant is found to be of the very best quality for making paper and other material. The butter and cheese exhibits show one of the most hopeful industries of the Dominion; the exhibit of Canadian cheese by Mr. T. D. Millar is remarkable for size, while the quality is pronounced by judges to be satisfactory. The Canadian cheese trade is an illustration of the enormous growth of exports, having reached in 1885 over 86 million pounds weight of cheese.

The products of the forests have long been a source of great wealth to Canada, and the woods throughout the Exhibition form one of its chief attractions. In no section are they finer or more varied than in the Agricultural, where, under the guidance of Professor Macoun, they become a prominent and interesting feature of the Exhibition.

Great credit is due to Professor Saunders for the successful preservation of the large collection of fruit, which, notwithstanding the failure to save many of the original specimens, numbers about 1,000 glass jars. Mr. Starr, who is now in charge of this department, informs us that it is the intention to supplement the present collection with specimens of fresh fruit, which will be forwarded from Canada

week by week as the different varieties mature, and it is expected there will be a grand display before the close of the Exhibition.

Some of the cheeses shown in this section are of enormous size, weighing as much as 1,228 lbs. each. They deserve to occupy a place so prominent, for Canada has rapidly become one of the greatest cheese-exporting countries in the world. The export has grown from 1,500,000 lbs. in 1868 to 85,000,000 lbs. in 1885, valued at \$8,500,000, eight times the quantity exported by the United States. Butter also was exported to over a quarter of a million sterling, and eggs to the enormous number of over 11½ million dozen. All these exports go mainly to the United Kingdom. It is worthy of note that within very recent years animals and their produce have taken a more important place in Canadian exports than agricultural produce itself. In 1882 the proportion to the whole exports of home produce was:—Agricultural produce, 35·61; animals and their products, 21·72; forest products, 26·57; fisheries, 8·17; products of the mine, 3·42. In 1885 the proportion was:—Agricultural produce, 25·08; animals and their products, 32·02; products of the forest, 24·06; fisheries, 9·13; products of the mine, 4·17. The export of beeves in 1877 was 25,357; in 1885 it was 143,000; of sheep in 1877, 141,187; in 1885, 335,000. There, indeed, seems to be constant fluctuation in the export of agricultural produce. For example, in 1868, we find it \$12,870,000; in 1874, \$27,568,000; in 1877, over \$19,000,000; in 1882, \$35,589,000; in 1884, \$18,000,000; and in 1885, \$19,000,000. On the other hand, the exports of animals and their produce show a constant increase from \$6,893,000 in 1868 to \$26,500,000 in 1885. Cattle are increasing in numbers much more rapidly than sheep. At the census of 1881 there were nearly three and a half million cattle, as compared with 2,700,000 in 1871, whereas sheep during the same period declined from above 3,200,000 to 3,000,000, and swine from 1,500,000 to 1,200,000. In 1881 the total crop of oats amounted to 70,000,000 bushels, while that of wheat was 32,000,000, and all other grain 48,500,000 bushels. The total produce of root crops was 104,000,000 bushels.

If we take a flight to the other end of the Central Gallery we find ourselves in the West Gallery, amid a bewildering profusion of agricultural implements of all kinds, which, as much as the cereal exhibits, show the importance of this branch of industry in Canada. Self-binders, reapers, mowers, horse-rakes, seeders, harrows, ploughs, scrapers, rollers, cultivators, fanning mills, threshing machines, and general

harvesting machinery of all types, may be seen in motion, for Canada has the exceptional distinction this year of being the only exhibitor having machinery in motion. In a country like Canada, where labour is scarce, the strongest impetus is given to labour-saving machinery. No doubt similar machinery will be seen at any agricultural exhibition in this country and the States, but not a few of the exhibits are distinctly novel, and all of them have undergone modifications which better adapt them to Canadian conditions. Ease and simplicity of work characterise most of them. We have ploughs that can plough something like a dozen furrows at a time, reapers that will do the work of 20 men, threshing machines of enormous size driven by steam or by two or three horses tramping over an ingeniously arranged endless belt of logs, grass and hay cutters, and, most wonderful of all, a machine that cuts and binds the grain at once as it goes along, and another combining a thresher, separator, and cleaner. As to the comparative merits of the machinery of the different makers, we cannot pretend to decide. The largest exhibitors are the Massey Manufacturing Company, Toronto; the Watson Company, of Ayr, Ontario, who have gained many medals; the Cockshutt Plough Company; Elliott & Sons, of Ontario; but there are many others whose products seem to us equally satisfactory. Where there is so much competition we may be sure the purchaser will be the gainer. The manufacture of agricultural implements is one which in Canada is bound to become of increasing importance. At the census of 1881 it was found that the capital invested in this industry was \$4,000,000; the total annual value of products, \$4,400,000; and the number of hands employed, 3,656. We must return to this department again when we come to speak of Canadian manufactures generally. Meantime let us hark back to the west end of the Central Gallery, and see what Canada has to show in the way of minerals.

Here we find a large and striking collection, as might be expected from a country having so admirably conducted a Geological Survey as Canada. For this large collection of minerals and rocks of economic importance has been brought together mainly by the Geological Survey, under the direction of Dr. A. R. C. Selwyn, many specimens, however, being exhibited by private persons. Perhaps the most prominent features of this portion of the Canadian Court are two immense blocks of coal from the Nanaimo and Wellington Mines respectively, the former weighing 5 tons 6 cwt. These mines are situated in British

Columbia, and are the most important ones on the Pacific coast. The aggregate output of the two mines in 1885 amounted to 357,548 tons, a considerable proportion of which was shipped to California. Coal also occurs abundantly in the provinces of Nova Scotia and New Brunswick, as well as in the North-West Territories. Its occurrence in inexhaustible quantities in the Territories is of especial importance, owing to the scarcity of wood on some portions of the plains. A room opening off one of the wings of the main court is devoted to Nova Scotia coal. This province, which contains the most extensive and important coal mines in the Dominion, is represented by large exhibits from no fewer than 13 collieries. The total amount raised in Nova Scotia in 1885 was 1,352,205 tons, and the total amount of coal produced in Canada in 1884 amounted to 1,783,365 tons.

Blocks of very fine iron ore from various parts of the Dominion are exhibited near the upper end of the court. Although iron is smelted in Nova Scotia as well as at several places in the province of Quebec, this industry is one which will probably be more extensively developed in the future, since Canada still imports far more iron than she produces. The total value of iron and steel imported into Canada in various forms in 1884 was \$14,790,727, and the grand total imported in the 17 years since confederation reaches the sum of \$230,741,434, equal to an annual average of 13½ million dollars. Iron ore is found in every province of the Dominion, and almost every variety of it is exhibited. In Ontario large quantities of the finest iron ore are annually mined and exported to the United States to be smelted there, owing to the fact that in this province coal cannot be obtained at a sufficiently low price to allow of the smelting being done on the spot.

Two large gilded pyramids representing respectively the amount of gold obtained from British Columbia in the last 25 years and from Nova Scotia up to the present time, as well as a large collection of specimens of native gold from various localities, bear witness to the fact that Canada is also a producer of gold. The principal gold districts are in the provinces of British Columbia, Quebec, and Nova Scotia. In the two former the gold is obtained from placer deposits, and in the latter by quartz-mining. The value of the gold obtained in British Columbia in the last 25 years is about \$50,000,000, while Nova Scotia has up to the present time produced \$7,708,010 worth.

Many specimens of various ores of silver, copper, zinc, and antimony, from different parts of the Dominion, are also on exhibition, as well as

specimens of excellent manganese ore, which has of late been extensively mined in Nova Scotia and New Brunswick, and much of which has been found on examination in the laboratory of the Geological Survey to be exceptionally free from iron. A good deal of work has recently been done in the Lake Superior district in developing important silver deposits which have been discovered there, and the results so far obtained are very promising. Of all the minerals in this court the asbestos probably attracts most attention. It is a mineral which has of late years been discovered and extensively mined, principally in the township of Thetford, in the province of Quebec. A large manufactory has also been erected at Quebec, which is supplied with all the most improved machinery for the production of various asbestos goods. The mineral can be seen in the crude state as it comes from the mine, as well as manufactured into rope and wick for engine and valve packing, powdered for the preparation of fire-proof paints, woven into tape, and made into millboard, &c. The exhibit of the Anglo-Canadian Asbestos Company is especially worthy of mention.

Another mineral which has recently been mined very largely in Canada is apatite or phosphate of lime. The principal mines are situated near Ottawa, and are in rocks of Laurentian age. Large blocks of the mineral from a number of different mines are to be seen in a wing of the main court, and a very large crystal of the mineral—probably the largest ever obtained—stands near these. The quantity raised increases every year; in 1885 it amounted to 23,908 tons. It is exported for the most part to Great Britain and Germany, and is used for the manufacture of artificial manures.

There is also a large collection of various oils, paraffin wax, candles, cokes, &c., manufactured by Mr. Waterman at London, Ontario, from petroleum obtained at Petrolia, situated in the same province. For the last four years the amount of petroleum pumped in this district has amounted to no less than 6,000,000 barrels annually, the industry giving employment to about 6,000 persons. A collection of cubes, pedestals, and slabs of building and ornamental stones is also to be seen in the main court, the granites and serpentines being especially handsome. There is also some very fine slate, as well as a number of articles, such as washtubs, blackboards, &c., made from it, and exhibited by the New Rockland Slate Company of Montreal. The principal brick manufacturers, mainly of the province of Ontario, have also sent a large collection of bricks, drain tiles, &c., as well as samples of the clay

from which they were manufactured. Many other minerals and products of great economic importance, such as graphite, gypsum, soapstone, mica, limes, cements, &c., are also on exhibition, but here cannot be more than mentioned. The whole collection forms about as complete a representation of the mineral wealth of the Dominion as could well be made in the space here allotted to it.

Nor must we omit to mention the fine collection, of more scientific than economical interest, of geological specimens and fossils. Most interesting of all are the specimens illustrating *Eozoon Canadense*, over which so many battles have been fought. Sir William Dawson, one of the most eminent living geologists, whom Canada has sent to preside this year at the Birmingham meeting of the British Association, maintains that in this we have the most ancient of all organisms. This, however, has been very hotly and ably contested, chiefly by German geologists. About the antiquity of the thing, whatever it be, there can be no doubt; as to whether it has lived and moved in Laurentian waters is a question on which probably there always will be two opinions.

Canada is evidently not yet ripe for the development of her immense mineral resources. Some day doubtless she will do great things with her coal and iron. In the situation of her coal beds not only she, but the British Empire, is particularly fortunate. In the East she has abundance of coal bordering on the Atlantic, and in the West an equal abundance bordering on the Pacific. Not only in time may she be the source of the principal coal supply for the whole Pacific coast of America, but the value to the Empire in case of war of two so accessible coal supplies is patent. The coal areas of Canada are estimated at about 100,000 square miles. Of the Cape Breton field alone the total available coal is estimated at 800 million tons. The basin of true and lignite coal of the best quality along the base of the Rocky Mountains, from the 49th parallel to the Peace River, is estimated at 50,000 square miles, while the Pacific coast area is estimated at about 14,000 square miles. In quality the Vancouver Island bituminous coals are found to be superior for all practical purposes to any coals on the Pacific coast.

(From the "*Times*," August 10, 1886.)

RISING beside the mineral collection is the greatest ornament of the Canadian Court, Mr. J. H. Hubbard's magnificent game trophy. Mr. Hubbard is a mighty hunter; most of the animals so effectively arranged in the lofty and crowded trophy were shot by himself, and they may be taken as a representative sample of the abundant game which still roams over Canada's northern territories and the picturesque slopes of the Rocky Mountains. As a matter of fact, however, nearly the whole of the specimens arranged in the trophy have been obtained within the province of Manitoba, of the gun club of which province Mr. Hubbard is president. As agriculture advances game must retire; but it will be a long time yet before the game is thus driven out of Manitoba, where for many years to come abundance of sport should be obtainable. But as there must be a limit both to agriculture and stock-raising in Canada, there is no reason why she should not in her remoter and higher regions be always well stocked with game, and so retain the products of the chase as a not unimportant export. Furs alone in 1885 counted for \$1,600,000 among her exports. Some of the specimens of Mr. Hubbard's skill as a marksman are really superb. Here we see many of the animals with which American hunting narratives have made us familiar—the Rocky Mountain goat, the wapiti, the big horn, the caribou, the moose, the black and grizzly bears, the Arctic fox, the skunk; with splendid heads of the moose, the Rocky Mountain sheep, the elk, buffalo, antelope, and many others, with birds of all kinds and varied plumage displayed in all. Underneath the trophy is a nicely furnished chamber, where Mr. Hubbard receives his visitors; and here, if a visitor succeeds in winning his favour, he will spread out one of the most magnificent buffalo hides that surely ever graced animal. To illustrate the natural history wealth of the Dominion, the Canadian Government contributes a fine collection of over 400 birds and 68 mammals. Her Royal Highness the Princess Louise also contributes a collection of birds, a souvenir of her pleasant Canadian experiences. The Hudson's Bay Company has a corner to itself, in which are arranged some splendid specimens of its furs. Adjoining the Hudson's Bay Company's exhibit is a case containing various specimens of the produce of the island of Anticosti, and among these various animals, including bears, a variety of birds, gulls, ducks, eagles, hawks, &c. As every one should know, this island, some 3,850 square miles in extent, lies right

in the centre of the mouth of the St. Lawrence. The popular impression is that it is a dreary island, mostly befogged, where no one would live unless compelled. We are now assured this is a mistake, and to prove the fertility of the island, the case referred to contains fine specimens of a variety of vegetables, besides cereals, game, fish, and other things. The island has been bought by Mr. F. W. Stockwell and his brother, and a company is being formed to develop it. The island evidently affords fair sport, and no doubt is capable of yielding crops of various kinds. But we should think it would be difficult to persuade people to colonise it so long as the mainland has so much space to spare. Those interested in the island should apply at the Exhibition for the abundant literature upon it and the prospectus of the company, and make up their minds for themselves as to its attractions. A good many other natural history specimens are on view in this and the adjoining court, including a large collection of insects sent by the Entomological Society of Ontario, and as an insect product should be mentioned 4,000 lbs. of extracted natural honey from Mr. Holtermann, of Fisherville, Haldimand, Ontario.

From land animals one naturally passes to the denizens of the waters with which Canada has been so abundantly endowed. The two great oceans bound her, and send offshoots deep into the land; the greatest lakes in the world she shares with the United States; lakes are scattered all over the face of the territory; and great rivers are everywhere. The collection of stuffed and preserved specimens of Canadian fishes and marine invertebrates is large and comprehensive, and the specimens as a rule in good condition. Nearly every class of fresh and salt-water fish is represented here, from the shark, the sturgeon, and the salmon, down to the haddock and the flounder. The importance of the Canadian fisheries has been very forcibly brought before the British public recently in connection with the disputes with the United States. This resource is indeed an invaluable one to Canada, and she should guard it carefully. Crustaceans and shell fish are also amply represented in this collection, as well as marine mammals like the seal and whale. The boating man, as well as the fisher will find special delight in walking through the court, lying to the west of the machinery section, devoted to fishing apparatus. Here we have fishing tackle in every variety; and here also, belonging to the class Navigation, we find those graceful canoes for which Canada is famous—cedar canoes, bark canoes, canoes with

paddles and canoes with sails, and boats and models of boats and ships of all kinds for fishing, for lumber, for ordinary trade. The importance of Canadian fisheries is evident from the fact that the exports of their produce in 1885 amounted in value to \$8,000,000, and the total value of their produce is estimated at \$31,000,000. Great attention has recently been given to the development of the Canadian fisheries, and Government wisely does what it can to encourage them. The number of men engaged in the fisheries in 1885 was 40,000, the number of large vessels 1,177, and of boats 28,470. Cod, of course, is the most abundant and valuable sea fish, the value of the yield in 1885 being over 4½ million dollars. Next to that comes the lobster (which we know is not a fish except in commerce), valued at \$2,613,000; the herring, nearly 2½ millions; mackerel, 1½ million; and then the salmon, \$1,150,000. Of tinned salmon alone 5,000,000 lbs. were exported in 1885, of which over four millions went to Great Britain. Many exhibits are shown connected with navigation generally, and this reminds us that Canadian ships are found on every sea, and the tonnage of the Dominion stands fourth in the list of maritime Powers. On January 1 of this year the number of vessels registered in Canada was 7,315, of 1,231,856 tons, including 1,181 steamers of 212,870 tons.

• Shipbuilding has long been an important industry in Canada, though since iron began to take the place of wood there has been some falling off.

Passing from the fisheries to the forest, we find one of Canada's oldest industries fairly well illustrated in her show of woods. The botany in general of the Dominion is particularly well represented in the Exhibition. There is a very fine Government exhibit of flowers, plants, and ferns, including about 3,000 species and varieties, besides another exhibit arranged to show—(1) plants of economic interest; (2) plants of interest to horticulturists; (3) plants of interest to scientific students. Mr. Chamberlin's collection of plates of specimens of wild flowers and fungi is of much scientific interest. The Western exhibits, however, are those which are likely to attract most attention. While specimens will be found over nearly the whole of the courts in one form or another, they are collected mainly in the Central Gallery. From the Canadian Government we have a British Columbia Douglas fir, 148 feet long, and a slab from a tree 25 ft. in girth and 300 ft. long, besides blocks of red fir, white spruce, cypress, pine, white birch, poplar, black birch, balsam, and other trees characteristic of the Dominion. The Hastings Saw Mill Company (British Columbia)

send fine sections of the Douglas fir, probably the most valuable tree of that region, and also of a spruce tree. In speaking of the agricultural trophy we referred to the fine specimens of timber which form part of it and to the photographs accompanying them, framed each in its own wood. The Government also has an exhibit, carefully prepared by the Geological and Natural History Survey, of 108 species of timber trees; and the Canadian Pacific Railway Company sends blocks of various woods belonging to the North-West Territories. The show cases, moreover, are nearly all of Canadian woods. From the New Brunswick Government there is a fine collection of woods of that province in the Central Court, arranged in planks as a trophy, with leaf, fruit, and flower nicely painted on each. Generally speaking, the pine, of various species, is the most valuable timber tree of Canada; the white pine and red pine over most of the eastern provinces; and the Douglas pine of British Columbia. Then we have white and black spruce, hemlock, white, red, and black, balsam pine, larch, birch, maple, beech, cedar, and a great variety of others, though that variety is not to be compared with what we find in the United States. Of all these the white pine is no doubt the most valuable and best known. The spruce, in its three varieties, is of importance to the lumber trade of the maritime provinces. The bark of the hemlock is valuable for its tanning properties, while that of the white birch is the bark so much used for canoes. The bird's-eye maple furnishes beautiful furniture wood; while many other trees of the Canadian forests find other uses, if for nothing else, at least as firewood.

But even at the present day, we fear, the Canadians show the most reckless disregard for their forests; though since the advent of the European fires have done far more to sweep away the forests than the agricultural pioneer or the lumberman. Dr. Robert Bell, of the Geological Survey, in a paper read at the Montreal meeting of the British Association, states that the amount of timber which has been lost through forest fires in Canada is almost incredible, and can only be appreciated by those who have travelled much in the northern districts. The proportion of red and white pine which has thus been swept away in the Ottawa Valley and in the St. Maurice and Georgian Bay regions is estimated by the lumbermen as many times greater than all that has been cut by the axe. Yet all this is insignificant in quantity compared with the pine, spruce, cedar, larch, balsam, &c., which have been destroyed by this means in the more northern latitudes all the way

from the Gulf of St. Lawrence to Nelson River and thence northwards. The total quantities which have disappeared are almost incalculable, but even a rough estimate of the amount for each hundred or thousand square miles shows it to have been enormous and of serious national importance. This is all the more to be deplored that these forest fires are usually the result of gross carelessness on the part of lumbermen and Indians. Any laws existing on the subject seem to be a dead letter. As a matter of fact, practically no care whatever has been exercised as to the cutting down of these forests. As a rule, they belong to the Central or to the Provincial Governments, and are let out in sections to the lumbermen, who cut down the trees as if the prosperity of Canada depended on getting her surface as rapidly denuded of timber as possible. It was until recently the same in the United States; but there the people have begun to realise the alarming truth that their timber supplies were getting rapidly exhausted; indeed, the North-Western States import largely from Canada. Systematic planting and forest conservation have now been introduced, and beneficial results must follow. The lumbermen of Canada, the real pioneers of settlement, have done splendid service in the past in opening up the country, and preparing the way for the farmer and stock-rearer. But Canada is a big country; there is ample room on her broad surface both for timber and for grain, and much of the denuded region is suited only for forest. The greater part of the white oak and rock elm, Mr. Bell assures us, have been already exported. The cherry, black walnut, red clover, and hickory have likewise been practically exhausted. Red oak, basswood, white ash, white cedar, hemlock, butternut, hard maple, &c., as well as many inferior woods, are still to be found in sufficient quantity for home consumption. A considerable supply of yellow birch still exists, and in some regions is still almost untouched. Mr. Bell shows that the white pine, the great timber tree of Canada, has a very much more limited area than is popularly supposed. Even if we include the Douglas pine area of British Columbia, the pine region is very limited compared with the whole area of Canada. The principal white pine reserves, as yet almost untouched, are to be found in the region around Lake Temiscaming and thence westward to the eastern shore of Lake Superior, and to the central parts of the district between the Ottawa at Georgian Bay. But the exportable white pine, Mr. Bell tells us, must be exhausted in a few years, though there are still vast quantities of spruce and larch to fall back upon, not to mention the

immense supplies of British Columbia. But there are still vast forests of small timber in the northern regions which can soon be used for agricultural purposes, and which could be used for railways, telegraph poles, fences, and such like. Still surely the condition of the Canadian forests deserves the serious attention of the Central and Provincial Governments. If it is decided that they are not worth preserving, then let the reckless lumberman and the forest fire have their way. But surely a product which has still so important a place in the exports and in the internal economy of the country deserves looking after. All that is wanted is systematic cutting and systematic planting, not only of native trees, but of such foreign species as would flourish on Canadian soil. In an official report published in 1878 it was estimated that, excluding Manitoba and the North-West Territory, about 300,000 square miles of Canada were under forest, and of this 142,000 square miles were in British Columbia and 115,000 in Quebec. The total value of forest produce exported in 1885 was \$21,000,000, and of this about nine and a half millions each went to Great Britain and the United States. About three-fourths of this export was classed as lumber, including planks, boards, joists, deals, and staves, about two and a half million dollars worth being in the form of square timber.

This timber export does not include manufactured articles of wood, of which there are so many exhibits, both in the Central Court, the West Gallery, and the stalls in the arcades. It was found at the census of 1881 that the number of factories engaged in industries dependent on wood was 17,577, the number of hands employed 95,741, and the annual value of the products \$95,000,000.

We have said that Canada is at present mainly in the second stage of national progress, the agricultural, and that agriculture must always be the staple industry. But all the Canadian Courts in the Exhibition give ample evidence that she is rapidly advancing to the third stage, the manufacturing. It was found at the census of 1881 that the capital invested in manufactures of all kinds amounted to over \$165,000,000, the number of hands employed to 255,000, and the total annual value of the products came to 310 million dollars. No wonder, then, that manufactures occupy so prominent a place in the Canadian Courts. It is well that this is so, for nothing will better demonstrate to the ordinary visitor the rapid and all-round progress of the Dominion—that it has long ago ceased to be inhabited simply by backwoodsmen and hunters. There is probably not a manufacture of importance unrepresented, from

pianos to nails, and from tweeds to biscuits. The Central Court, in which the principal articles of this class are arranged, is always crowded, and indeed it looks like the show room of a great store. Beginning at the west end of the court, we have cases devoted to boots and shoes and cooper work of all kinds, the former highly creditable and the latter varied and excellent. Alongside of them in the centre of the court is a great variety of furniture, much of it handsome and even artistic, and all of it substantial—handsome wooden bedsteads, chairs of most inviting make, billiard tables, carpets, tables, mirrors, wall papers—and in the court to the north beds and bedding of every description. The desks, cabinets, and office furniture are particularly striking and novel, and quite equal to similar productions from the United States. It is curious how America should have gone in so largely for this particular kind of manufacture. A little further on we find a small section of wall space devoted to a new kind of window blind, very prettily painted in different patterns, and waterproof, we believe. Along both sides of this court many cases are devoted to woollen manufactures, as well as some cotton goods. We find tweeds, flannels, blankets, plaids, and woollen articles of all kinds. The main characteristic of them seems to us to be utility; they are evidently useful, wearing goods, making no pretence to the finish and elegance of similar textures from New Zealand and New South Wales, not to mention the mother country. In time, no doubt, Canada will be independent even of the mother country, even for the most finished woollen, if not cotton, textiles, and the most elegant boots and shoes. Among other classes of articles in this department we find hats of all kinds, corsets and umbrellas, fur goods of every variety, sewing silks and ribands, and silk goods, some pretty lace work; moccasins we have, of course, of all patterns, and leather and leather articles of various kinds, besides boots and shoes. Canada, like every other big colony, has its biscuit trophy (contributed by Christie, Brown, & Co., of Toronto), occupying several hundred square feet of wall space, and showing every variety of biscuit, all looking toothsome and well-shaped. Beyond the biscuit trophy and around the agricultural trophy we have canned meats and fruits in endless variety, condiments and sauces, confectionery, ale, porter, and lager beer, and even Canadian wines and rye whisky. As Canada grows excellent grapes in its southern districts (Vinland was the first name given to America by its great Norse discoverers a thousand years ago), there is no reason why she should not make tolerable wines, though we cannot pronounce on the quality of those exhibited.

What probably attracts most attention in the Central Court are the pianos and organs so largely exhibited. Probably few people thought that Canada was so far advanced in civilisation as to be able to produce such a profusion of articles in this class. In American organs and American pianos she evidently is quite capable of holding her own with the United States. All of the instruments shown in this court are of excellent exterior finish, and competent judges assert that some of these pianos cannot be matched in England, at least in all those characteristics of tone and quality which are most valued by experts. In the court of Mason & Risch, of Toronto, is an exhibit which at the present moment is of special interest—a life-size oil portrait of the late Abbé Liszt. A letter from the Abbé to the firm speaks in high terms of one of their pianos sent him, and informs them that he sends them his portrait, painted for them by Baron Jakovsky. It is no wonder the firm are proud to exhibit this portrait, and decline to part with it for any money. But they are not the only firm of exhibitors who produce excellent pianos, as any player can find out for himself. The American organ is there in many varieties, and its music, generally well played, always attracts a crowd.

Before leaving this court we should mention the knitting machine, which is worked by a girl, and which will finish a pair of socks in half an hour—"while you wait," in fact; and the tobacco stall near the agricultural trophy, in which Canadian grown and manufactured tobacco is on sale in various forms, and of fair quality. Here also we find the sewing machine, which has become a Canadian and American speciality, and some rolls of beautiful Canadian paper, with highly creditable specimens of account-books and other paper products. Passing on once more into the Machinery Court, we find other large exhibits of woodwork, doors and window sashes mainly, which are made in a wholesale fashion and exported to a considerable extent. In this court is an ingenious railway carriage window, fitted with Clarke's automaton window sash, by which the window can be raised or lowered to any height with the certainty that it will stay there. Here also we see wood in combination with iron and steel in every variety of instrument and implement. Besides the agricultural machinery already alluded to, we find here many other products of the metal manufacturing industries. An iron-planing machine and a fretwork machine are specially worthy of notice for their simplicity, lightness, and cheapness. A saw-sharpening machine, in which a little emery wheel driven by machinery does the work effec-

tively, rapidly, and quietly, will commend itself to all who have ever been tortured by the old-fashioned process of conducting the operation. The same Hart Emery Wheel Company show emery wheels of all sizes in this court. Then we have a great biscuit-baking machine, with everything complete, from the flour-bin onwards. The Corless engines, of 100-horse power, and Westinghouse engine are compact, and should be extremely useful for many purposes. There is a vast display of tin utensils of all kinds on the walls, and of ranges and stoves for every and any kind of fuel—coal, wood, or gas. We never saw anything in this country equal in finish, handiness, and strength to the spades and axes which are exhibited here in such immense variety. The nail trophies and the augers are things of beauty, while the steel-wire door-mats are a great improvement on the open india-rubber article. The buffalo barb fences are an ingenious adaptation to peculiar Canadian conditions. The machine-made horse-shoes seem to us worthy of attention, and so is the hot-water heating apparatus shown in this court.

But it would be hopeless to attempt to give anything like an adequate idea of the multitude of manufactures which England's greatest colony is able to show as evidence of her progress. That progress, so far as manufactures are concerned, has been extremely rapid in recent years. The capital invested in manufactures increased from \$77,694,000 in 1871 to \$165,300,000 in 1881, and the annual value of the products from \$221,618,000 to \$309,676,000. This development has been most marked since 1878. Mr. Carling's hand-book informs us that a partial investigation made in 1884-5, in the provinces of Ontario, Quebec, New Brunswick, Nova Scotia, and Prince Edward Island, shows that there had been in 1884 an increase over 1878 of 75 per cent. in the number of hands employed, of 75 per cent. in the amount of wages paid, of 93 per cent. in value of products, and of 75 per cent. in capital invested. In 1857 there were only two woollen mills in all Canada, and in 1858 the first tweed factory was started. Now there are 450 carding and fulling mills, 90 hosiery factories, and 1,300 tweed and other woollen mills, employing a total of 10,000 hands, and producing goods to the annual value of 11 million dollars. Up to 1880 Canada exported large quantities of her wools and imported manufactured woollens. The returns of 1885 show that the exports of Canadian wools were only 990,000 lbs., a decrease of 2,600,000 lbs. as compared with the export of 1880. The first cotton mill was established

in Canada only 15 years ago ; now there are 24 mills in the Dominion, with 600,000 spindles. In 1869 the import of raw cotton was 1,245,208 lbs., in 1885 it was 23,727,525 lbs. The number of hands employed has increased 80 per cent. since 1880. The imported cotton is about 42 million yards, leaving 158 million yards to be supplied by Canada factories. These figures do not look well for British industry. Taking the census figures of 1881, the magnitude of some of the other industries represented in the Exhibition may be seen from the following table :—

	Capital. Invested.	Hands- Employed.	Annual Value of Products.
	Dollars.		Dollars.
Bakeries	2,509,000	3,963	9,477,000
Blacksmithing	3,056,650	12,451	7,172,500
Boots and shoes	6,491,000	18,950	17,896,000
Furniture... ..	3,943,420	5,857	5,471,740
Carriage-making	3,799,000	8,713	6,579,000
Cheese factories	1,021,400	2,000	5,464,500
Foundries... ..	9,470,000	9,980	11,558,000
Flour mills	13,858,000	6,742	41,772,000
Musical instruments	670,000	1,840	1,690,000
Paper factories	2,238,000	1,520	2,447,000
Preserved foods	122,560	8,453	2,686,000
Sash and door factories	1,997,000	2,878	4,872,000
Sewing machines	921,260	1,188	1,948,000
Tobacco-making	1,830,000	3,757	3,060,000

While dealing with manufactures we ought to say that in the most westerly of the Canadian Courts will be found varied wooden articles on a large scale ; cheese-manufacturing machinery (with specimens of cheese to taste handed you by a nice-looking girl), wood fibre used for a variety of purposes, vats, &c. Above all, here will be found a very various exhibit of carriages of all kinds, from the neat brougham up to the buggy and team waggon, with sleighs of the most luxurious and elaborate patterns. The width of axle of these carriages compared with the body is remarkable, and is evidently adapted to a country where snags and stumps and boulders would soon play havoc with a narrow-gauge trap. The slenderness of the spokes and rims of the wheels seems also strange ; but then they are made of hickory, as

strong as steel, and practically unbreakable. The finish and workmanship of these carriages seem all that could be desired.

There is much else that deserves notice in connection with these spacious Canadian Courts, if space permitted. We have referred to the specimens of paper in the main court. In the Machinery Court will be seen a Canadian newspaper printing machine, by E. B. Biggar, of Montreal, at work; while in the Educational Court will be found specimens of nearly every newspaper and journal published in Canada; and there are many of them—some 65 altogether. Of these 71 are daily, 10 tri-weekly, 21 semi-weekly, 4 weekly; 51 altogether are issued in French, seven German, and the rest English. In 1885 Canadian newspapers used the telegraph to the extent of 65½ million words. The newspaper press of our leading colonies has attained a high rank, and the two or three leading Canadian papers will compare with the best of those in other colonies. Canada has already produced a very creditable national literature, notably in history and science. As the section devoted to education and instruction shows, Canada has an excellent system of national education. The Ontario section has been admirably arranged by Dr. Passmore May, the commissioner in charge of the education exhibits of that province, and would require an article to itself to do it justice. In this department we have a very considerable library of works relating to Canada—a feature wanting in most of the other colonial courts. We regret to see that Canada seems as far behind in geographical instruction as we are ourselves, to judge from the maps exhibited, which, on the whole, are very poor. There is one great relief map of Europe shown by the Education Department which is very bad indeed. We find, for example, a great range of mountains in Kent as high as the Grampians. Otherwise this educational exhibit reflects the highest credit on the Colony. There is much historical and statistical material showing the progress and present condition of education; exhibits illustrative of school methods and organisation; a fair show of photographs of schools, colleges, &c.; school furniture and fittings, some of them highly ingenious; text-books of all kinds; apparatus used in teaching anatomy and physiology, physics, chemistry, and other subjects; with abundant specimens of pupils' work in all departments. Then we have exhibits for mechanics' institutes, art schools, institutes for deaf, dumb, and blind, agricultural and other special colleges, universities, and the higher institutions. All these are shown and are

exhibited by the Ontario Government ; but other provinces have also sent exhibits. The Geological Society's exhibit of maps is very large, and the cartography good. The magnificent map in the main court on the scale of 12 miles to the inch deserves special notice ; it has been prepared under the direction of Mr. Collingwood Schreiber, chief engineer and general manager of the Dominion Government railways. To the many photographs throughout the court illustrative of the scenery, the cities, and the people of Canada we can only allude, merely mentioning the large groups illustrative of tobogganing and the skating rink. The paintings we may have an opportunity of referring to afterwards.

Enough has been said to prove how abundant and various are the activities of our Canadian brethren. Since confederation in 1867 the story has been one of steady advance in all directions. Now she has 10,000 miles of railway spread over her broad domain, with projects of sundry branches extending from the main track in all profitable directions. Her debt is something like 42 millions sterling, and it has mostly been expended on useful public works ; not much more than the debt of New Zealand, which has only one-tenth of the population. Revenue and expenditure have both grown, and so has trade, with considerable fluctuations, however. The great country westwards is being rapidly taken in ; manufactures, as we have seen, are growing with ever-increasing rapidity. Notwithstanding the marked difference between the English and the French colonists, they manage to get on with wonderfully little friction, the English section wisely accommodating themselves in language, educational matters, and other respects to the older occupants of the country. The country does not need to be vamped up, and already it has almost outlived misrepresentation. For those who desire detailed information on points on which we have only been able to touch, there is abundance of literature, and trustworthy information may always be obtained from the office of the High Commissioner, Sir Charles Tupper, to whose enthusiasm and intelligence the Canadian Section owes its success.

(From the "Times," September 21, 1886.)

THE educational exhibits of Canada deserve more detailed notice than we were able to accord them in our previous articles. In none of the Courts is this department of Colonial activity so fully represented. As we have already said, the Educational Department of Ontario, under the care of Dr. May, is more fully represented than is the case with any of the other provincial governments. The Ontario educational system has been in working order for many years, and is very completely organized, from the Kindergarten and public elementary schools up through the various training schools for teachers, classical schools, universities, technical schools, special schools, medical and other independent schools, and scientific and literary institutions. All these classes of institutions are well represented in the Ontario Court. In the gallery there are abundant exhibits showing the working and results of the Kindergarten and elementary schools. In the former the training seems well adapted to educate the eyes and the fingers of the little ones, as well as to draw out their budding minds. The specimens of art work, of maps, and exercises of various kinds from the elementary schools would come out well if placed alongside any similar specimens from the schools of this country. The art schools especially appear to be doing excellent work, as any one may see for himself by inspecting the many sketches and models which are exhibited in the Court. The systems in vogue in the institutions for the deaf and dumb and for the blind seem particularly well adapted to their purpose; and the statistics of these institutions on the central screens, as well as the specimens of work and illustrations of method and apparatus in the gallery, are well worth inspecting by those interested in this special department of education. Evidently very great care is bestowed on the training of teachers for the various classes of schools in Ontario. The examinations which they have to undergo are formidable and comprehensive, and for the higher grades quite as formidable as that of the London B.A., and far more varied. Science holds a prominent place in the educational system at Ontario, and the specimens of apparatus in all departments—physics, chemistry, biology—for teaching it are among the prominent exhibits in the Court. The Ontario Agricultural College, established in 1874, is largely represented among the exhibits; and from them, as well as from the published reports and results, it is evident that the institution affords an admir-

able training, which must have a highly beneficial influence on the agricultural development of the Dominion. These are only a few of the more evident features of this interesting Court. We must refer those desiring further details to the volume on the "Educational System of the Province of Ontario," published in connection with the Exhibition.

Quebec had a difficult problem to solve in organizing a system of education for a population the majority of which are Roman Catholic; but the solution has been successful. As in Ontario, both higher and elementary education are provided for by the State and the municipalities combined, and the various classes of institutions are almost as varied. The Quebec educational exhibits are not so numerous and varied as those of Ontario, arising, we believe, from the short notice given to the various institutions to prepare. Still they are sufficient to show that in Quebec, as in Ontario, education is on a sound and healthy footing. There are hundreds of specimens of pupils' work—many photographs, reports, books, and other objects—which will afford teachers here a fair opportunity of judging of results. In Quebec, as in Ontario, the business school is a common institution, in which young men are specially trained for positions like those of clerks, shopkeepers, commercial travellers, &c.

It has been said of the New Brunswick school system that it is theoretically the best in America. Practically it seems to be in a state of great efficiency. From a very early period this province has devoted special attention to education, and a very considerable proportion of the provincial income is devoted to its promotion. There is a very fair and satisfactory collection of apparatus, text-books, specimens of school work, school furniture, registers, &c., in the New Brunswick Court. The Nova Scotia educational exhibit is strong in specimens of drawing, maps, copy-books, needle-work, school furniture, and specimens illustrative of the system adopted in the schools for the blind and for deaf mutes. The educational department of Prince Edward Island sends a considerable collection of text-books in use, as well as sundry examination papers and specimens of pupils' work. From the Catholic schools of Manitoba we have a collective exhibit of educational appliances, books, exercises, &c. Altogether education in Canada is in a healthy and hopeful condition. There are probably too many degree-granting bodies—14 in all; degrees would be much more valuable if they were granted solely by one central university for each province. In all the

provinces Government has more or less the control and support of education. In Ontario education is virtually compulsory. In Nova Scotia compulsion exists to some extent; in New Brunswick there is none, though the public schools are free. In Prince Edward Island attendance is enforced for at least thirteen weeks in the year; and in Manitoba the local boards may enforce attendance. In British Columbia the schools are supported entirely by Government, and are free to all; there is a compulsory law, but it is not enforced.

Visitors to the Exhibition should by no means neglect to mount to the gallery of the Albert Hall, where they will find a surprise in store for them. The walls are covered with pictures mainly illustrative of scenes and life in India, New Zealand, and Canada. The Dominion, thanks to the Princess Louise and Lord Lorne, has now a National Gallery and a Royal Academy; and, to judge from some of the specimens on the walls, she is progressing as rapidly in the luxury of art as she is in her industries. These pictures, whether regarded as showing the condition of art in Canada or as illustrative of Canadian life and scenery, are an acquisition to the Exhibition. They tell us more than the best photographs can do. The largest exhibitor is Mr. L. R. O'Brien, President of the Royal Canadian Academy, and all his pictures are thoroughly Canadian. Such subjects as "Voyageur on the St. Maurice," "September on the Saguenay," "View of the St. Lawrence from Quebec Terrace" (lent by the Queen), speak for themselves. The wrinkled soles of the feet of the boy in the picture "Papa's Boat," by Mr. Paul Peel, are perfect. Mr. F. M. Bell-Smith's "Bay of Fundy," Mr. Peel's "Return of the Harvesters," Mr. Sandham's "Un Habitant," Mr. R. Harris's "Meeting of Trustees of a Back Settlement School," and many others that might be mentioned, all help us to realise more impressively than words or photographs the conditions of life in Canada; and it is only from that point of view that we can refer to these pictures at present. The Princess Louise's "Niagara Falls—Canada Side" renders a subject of infinite difficulty with a breadth of treatment not often attained. There are pictures of Canadian subjects by one or two English artists, as Mr. Verner and Mr. Friend; and this Exhibition may be the means of sending other English artists to Canada in quest of new subjects and new effects.

While dealing with Canada, we may refer to our statement in a previous article with reference to the comparative increase of population in the Dominion and the United States. As a matter of fact,

though the absolute growth of the population of the latter has been much greater than in the case of the former, the rate of increase in Canada considerably exceeds that of the United States. The following extract from a paper by Mr. J. G. Colmer, read at the Society of Arts in 1884, bears upon this point:—

The question of the population leads me to state a fact which I do not believe is as well known as it ought to be—that, compared with the United States, the growth of Canada has been more rapid than is supposed. In 1776 the former contained about 3,900,000 inhabitants, and in 1881 about 50,000,000—an increase of about 1,250 per cent.; Canada, on the other hand, at the census of 1784, numbered less than 150,000, while in 1881 it had advanced to 4,324,810—an addition of 3,000 per cent. Since 1880, when both countries began to experience the effects of European emigration, Canada has shown an increase of about 480 per cent. while that of the United States has been about 390 per cent. In other respects the progress of the country has been equally satisfactory, and in no way justifies the stigma that, until a few years ago, it was the custom to cast upon the energy, intelligence, and enterprise of the Canadians. Considering the disadvantages under which they have laboured; that their growth has been accomplished without much direct assistance from the mother country, and in competition with the great nation, their neighbour; that the western prairies of the United States have been accessible since 1840, while those of Canada have only had railway communication for about five years; I think it must be admitted, apart from possible national prejudices, that the progress of Canada has been very creditable to its people; and that they have endeavoured, in the words of Sir Alexander Galt at the Colonial Institute in 1881, to prove worthy of the great race from which they have sprung.

Again, when referring to the comparative development of the resources of the two countries, we did not mean to forecast the future; for, with the extension of railways all over the Dominion and the opening out of her great mineral resources, it would be difficult to say what would be the limit of Canada's development. We are also glad to learn, with reference to the timber products of Canada, that the preservation of the forests is engaging the serious attention of the Dominion and Provincial Governments.



